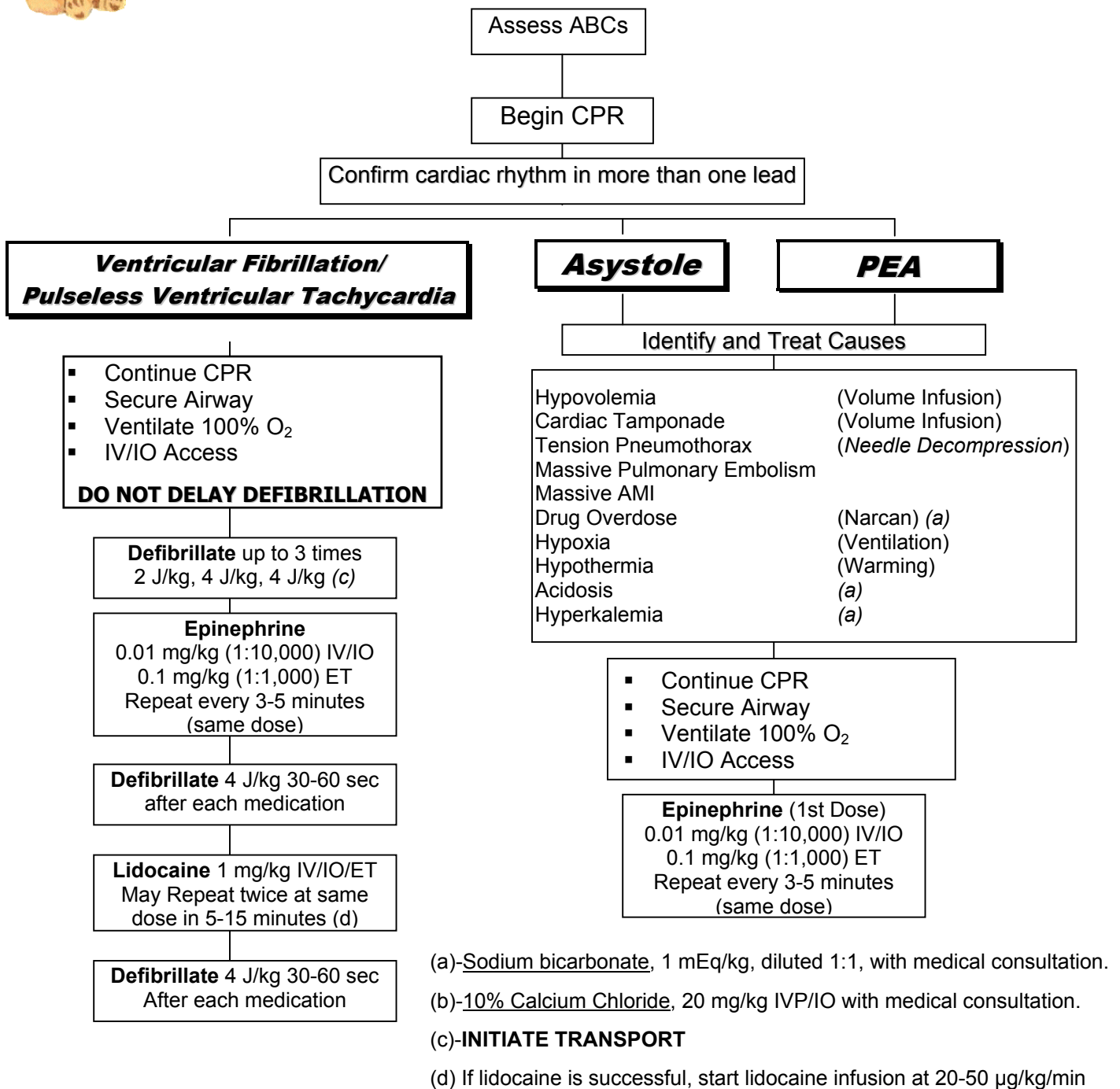




PEDIATRIC PULSELESS ARREST ALGORITHM



**Note Well: Follow each drug with defibrillation. Sequence should be:
CPR→DRUG→SHOCK (Repeat.) OR CPR→DRUG→SHOCK→SHOCK→
SHOCK. (Repeat.)**



Pediatric Cardiac Emergencies: Ventricular Fibrillation & Pulseless Ventricular Tachycardia



Note Well: Cardiac dysrhythmias in otherwise healthy children are frequently the result of respiratory distress.

I. All Provider Levels

1. Follow the General Patient Care guidelines in section A1.
2. Confirm absence of respirations and pulse, and begin CPR with BVM and 100% oxygen.
3. Apply the AED and evaluate rhythm.



Note Well: Do not use an AED on a patient younger than 8 years of age or weighing less than 25kg (55 pounds)



Note Well: EMT-I and EMT-P should use the monitor-defibrillator.
1. Defibrillate at 2 J/kg (maximum 200 joules).
2. Defibrillate at 4 J/kg (maximum 360 joules).
3. Defibrillate at 4 J/kg (maximum 360 joules).

5. Call for ALS support. Initiate care and do not delay transport waiting for an ALS unit.
6. If the airway cannot be maintained, initiate advanced airway management using a combi-tube.



Note Well: Do not use a combi-tube on a patient younger than 16 years of age or less than 5-feet tall.



Pediatric Cardiac Emergencies: Ventricular Fibrillation & Pulseless Ventricular Tachycardia

I. All Provider Levels (Continued)



Note Well: The EMT-I and EMT-P should use ET intubation.



Note Well: DO NOT DELAY DEFIBRILLATION!

7. Establish IV access of normal saline.



Note Well: BLS Providers cannot start an IV on a patient less than eight years of age



Note Well: An ALS unit must be en route or on scene.



Note Well: If IV access cannot be readily established and the child is younger than 6 years of age then ALS Providers only may proceed with IO access. If the child is over 6 years of age, then contact Medical Control for IO access.



Note Well: DO NOT DELAY DEFIBRILLATION!

8. If no change, continue CPR and hyperventilate with 100% oxygen



Pediatric Cardiac Emergencies: Ventricular Fibrillation & Pulseless Ventricular Tachycardia



II. Advanced Life Support Providers



Note Well: *ET doses should be flushed with 3-5cc of normal saline. IV doses should be flushed with 5-10cc of normal saline.*

1. Using the most readily available route, administer epinephrine 1:1000 solution at 0.1mg/kg (maximum single dose 10mg) via ET or 1:10,000 solution at 0.01 mg/kg (maximum single dose 1.0 mg) via IV or IO. Epinephrine may be repeated every 3 to 5 minutes at this dose.
2. Defibrillate at 4J/kg (maximum 360 joules) 30-60 seconds after administration of any medication.
3. Administer lidocaine at 1mg/kg IV and repeat twice in 5 minutes if rhythm continues.
 - A. Maximum total dose should not exceed 3.0mg/kg.
4. Continue defibrillation at 4J/kg (maximum 360 joules) 30-60 seconds after administration of any medication if rhythm does not change.



Note Well: *If ventricular fibrillation or pulseless ventricular tachycardia recur after successful defibrillation, repeat defibrillation using the last energy level that restored perfusing rhythm.*



Pediatric Cardiac Emergencies: Ventricular Fibrillation & Pulseless Ventricular Tachycardia



III. Transport Decision

1. Contact Medical Control for additional instructions.
2. Initiate transport to the nearest appropriate facility as soon as possible.
3. Perform focused history and detailed physical exam en route to the hospital.
4. Reassess at least every 3-5 minutes, more frequently as necessary and possible.



IV. The Following Options are Available by Medical Control Only

1. IO access for patients greater than 6 years of age.



This protocol was developed and revised by Children's National Medical Center, Center for Prehospital Pediatrics, Division of Emergency Medicine and Trauma Services, Washington, D.C.



***Pediatric Cardiac Emergencies:
Ventricular Fibrillation &
Pulseless Ventricular Tachycardia***

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